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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/748,855 | 12/28/2000 | Takafumi Ito | 04329.2491 | 6080 |

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| EXAMINER |
| DIVINE, LUCAS |

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| ART UNIT | PAPER NUMBER |
| 2624 | |

DATE MAILED: 08/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

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| Application No. 09/748,855 Examiner Lucas J Divine | Applicant(s) ITO ET AL. Art Unit 2624 |
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 December 2000.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-20 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 28 December 2000 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

| | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6) <input type="checkbox"/> Other: _____ |
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DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statements (IDS) submitted on 2/20/2001 and 5/4/2001 were filed after the mailing date of the application on 12/28/2000. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "12" in the specification and "15" in the drawings have both been used to designate the **ROM**.

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "2" on page 9 line 9 of the specification and "22" in the drawings have both been used to designate the **display control unit**.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: A3, A13, B3, and B13.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page

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header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Objections

6. Claim 20 is objected to because of the following informalities: the word configure does not make sense in the grammatical structure of the sentence on page 35, line 25. It is suggested that the word be changed to **configured**.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1 – 9 and 12 – 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Honda et al. (US 6021393) hereafter referred to as Honda.

Regarding claim 1, Honda teaches an information processing system (Fig. 1) for accessing a data storage medium having a card shape (Figs. 1 ref. no. 5), the storage medium having an outer surface on which printing can be performed (Fig. 2 ref. no. 5a), comprising:

a data processing section (Fig. 1 ref. no. 31 and 32, col. 5 lines 21-23, wherein the computer, including CPU and memories controls the data processing on the system of Fig. 1);

a supporting section to support the storage medium (Fig. 1 ref. no. 4, col. 4 line 39, wherein the card is set in the device thus being supported by it, and within the card read/write device the card carrier table 44 in Fig. 8 supports the card, col. 10 line 43);

a connecting section configured to interface the data processing section with the storage medium, when the storage medium is supported by the supporting section (Fig. 8 ref. no. 72, col. 10 lines 63-67, wherein connecting section is the flat cable 72 between the personal computer 3 and the optical card device 4 of Fig. 1); **and**

a printing section configured to perform printing (Fig. 8 ref. no. 46, col. 11 lines 15-18, wherein Honda teaches an optical head for printing data) **on the outer surface of the storage medium that prints contents of access to the storage medium** (Fig. 2 ref. no. 5a, col. 5 lines 52-54 and col. 6 lines 7-12, wherein information, including contents as part of control data A, is recorded on the surface of the card by the optical head).

Regarding claims 2 – 7, each depending from claim 1, Honda further teaches that **the printing section prints contents of storage and capacity after data storage or deletion and data reads** (Fig. 3, col. 6 lines 7-12, wherein when any information is altered in areas B-G, the control data section A is updated with the latest content information and storage capacities; this update inherently includes printing contents, capacities, or marks as well as erasing previous information about the data stored).

Regarding claim 8, which depends from claim 1, Honda further teaches **storing a printed content storage file associated with contents printed on the outer surface of the storage medium** (Fig. 3, col. 6 lines 7-12, wherein the control data is inherently a storage file associated with contents printed on the outer surface of the card in areas B-G).

Regarding claim 9, which depends from claim 1, Honda teaches in an alternate embodiment that the cards of his system can include an IC storage area in columns 9 – 11. He later teaches being able to **access said storage area on the storage medium and printing by the printing section at the same time** (col. 11 lines 19 and 40-45).

Regarding claim 12, which depends from claim 1, Honda further teaches that the disclosed **printing section comprises a print head movable in a second direction crossing the first direction of the loaded card** (Fig. 8, col. 10 lines 39-43, wherein the optical head 46 reads in a direction perpendicular to the direction the card was loaded).

Regarding claim 13, which depends from claim 1, Honda further teaches that the system **comprises an information processing apparatus** (Fig. 1 ref. no. 3) and a **peripheral devices for information processing** (Fig. 1 ref. no. 4) **configured to communicate with the information processing apparatus** (Fig. 1, wherein the line

between the card device 4 and the personal computer 3 represents such a configuration and col. 5 lines 39-40 and col. 11 line 34, wherein the computer 3 controls the peripheral device),

the peripheral device comprising the data processing section (col. 5 line 39 wherein the card device reads and writes device to the card, thus processing data transfers between the card and the personal computer), **the supporting section** (Fig. 8 ref. no. 44, col. 10 line 43, wherein the card carrier table supports the card), **the connecting section** (Fig. 8 ref. no. 72), **and the printing section** (Fig. 8, col. 11 line 17, the optical head 46, which records information on the surface of the card).

Regarding claim 14, which depends from claim 13 as it depends from claim 1, Honda further teaches that the **information processing apparatus comprises a requesting section for requesting the data processing section to access the storage medium and to cause the printing section to print the contents of the access** (col. 5 lines 39-40 and col. 11 line 34, wherein the personal computer 3 controls the peripheral device 4 in all respects, including reads and writes to the card).

Regarding claim 15, which depends from claim 13 as it depends from claim 1, Honda further teaches that the **peripheral device communicates with the information processing apparatus by cable communication** (Fig. 8 ref. no. 72, col. 11 lines 33-34, wherein the communication occurs through a flat cable).

Regarding claim 16, claim 16 includes all of the limitations of claims 1 and 13 and is rejected for the reasons stated above in the rejections of claims 1 and 13.

Regarding claim 17, which depends on claim 16, claim 17 includes all of the limitations of claim 15 which depends from claim 13 as it depends from claim 1 and is rejected for the same reasons stated above in the rejection of claim 15.

Regarding claim 18, which depends on claim 16, claim 18 includes all of the limitations of claim 6 which depends from claim 1 and is rejected for the same reasons stated above in the rejection of claim 6.

Regarding claim 19, which depends from claim 16, claim 19 includes all of the limitations of claim 9 which depends from claim 1 and is rejected for the same reasons as stated above in the rejection of claim 9.

Regarding claim 20, the peripheral device claimed in claim 20 includes all of the limitations of claims 1 and 14. In claim 14, the data processing section accesses the storage medium. This limitation in claim 14 is an **accessing section configured to access the storage medium** as claimed in claim 20.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Honda in view of Fukui et al. (US 6064413) hereafter referred to as Fukui.

Regarding claims 10 and 11, which depends from claim 1, Honda teaches all of the limitations of claim 1 as stated in the rejections of claim 1.

Honda does not teach **the using a thermal head for printing and erasing contents printed on the outer surface of the storage medium by using heat.**

Fukui teaches **the using a thermal head for printing and erasing contents printed on the outer surface of the storage medium by using heat** (col. 5 lines 17-20 and further throughout, wherein Fukui discloses an invention to thermally print and erase data in a card read/write apparatus such as the one from Honda).

Honda and Fukui are combinable because they both read and write on the surface of storage mediums shaped like cards.

It would have been obvious to add the printing and erasure thermal data to the card read/write system of Honda. The motivation for doing so would have been to provide printing system with a print head with reduced power consumption.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US 6,422,468 Nishizawa et al. 7-23-2002, wherein a thermal recording and erasing system on card surfaces for visible display is disclosed.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lucas J Divine whose telephone number is 703-306-3440. The examiner can normally be reached on Monday through Friday, 8:00am - 4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Moore can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Lucas Divine
ljd

Lucas J Divine
Examiner
Art Unit 2624

David K Moore

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